08/28/2003 22:51 FAX 9524768587

-10-

REMARKS

This communication is in response to the Office Action mailed on April 28, 2003.

The Office Action first reports that a reference to a Panoptic website listed on the IDS filed December 20, 2003 has not been considered because a relevant date was not identified in the reference. The Office Action states that other website references have a date on which the reference was printed. Submitted herewith is another copy of the Panoptic website reference. This reference was printed August 18, 2000, which appears at the bottom of the page and may have been cutoff during copying. Another PTO-1449 listing this reference is also enclosed. Pursuant to 37 C.F.R 1.97f applicants respectfully request this reference be considered with an initialed copy of the enclosed form returned to the undersigned. If any fee is required for consideration of this reference, please charge deposit account 23-1123.

The Office Action reports that claim 33 was objected to due to the feature of "imitating sensing with a switch movable relative to the second location". Claim 33 has been amended as suggested by substituting --initiating— for "imitating".

The Office action next reports that claim 35 was rejected under 35 U.S.C. §112 because there was insufficient antecedent basis for the limitation "positioning" in line 1. Claim 35 has been amended to remove issues of antecedent basis.

Also, claim 32 was amended to correct a typographical error because "identifying includes identifying includes" was mistakenly written twice and has been corrected to be written once only.

The Office Action next reports that claims 1, 2 and 4 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,528,290 to Saund (hereinafter Saund). According to the examiner, Saund teaches a visual sensor

-11-

providing image data corresponding to sensed images, the visual sensor selectively directed toward a first position to sense a first image and toward a second position to sense a second image; and an image process coupled to the visual sensor to receive the image data from the visual sensor, the image processor capable of processing the image data as a function of direction of the visual sensor toward the first position or the second position, where the dead reckoning is based on position to pan/tilt of camera when image is captured.

Saund is a device for transcribing images on a board using a camera based board scanner. Saund provides that,

In step 100, the scanned image sections are captured as "tiles." Each tile is a portion of the image scanned by a camera, as shown in FIG. 3. A Board 60 is captured as a series of tiles 62, 64, etc. The tiles slightly overlap with neighboring tiles, so that the entire image is scanned with no "missing" spaces. [Col. 3, lines 42-47]

Therefore, it is apparent that the different "tiles" of Saund are sections or pieces of a single image projecting on board 60. In contrast, in the present application, FIG. 1 and the corresponding sections of the written description disclose a sensor 13 that can scan an image on board 14A as well as separate images on board 14B (i.e. a second whiteboard) or surface 15 (i.e. a tabletop).

Claim 1 has been amended for the sake of clarity so that the visual sensor is selectively directed toward a first writing surface to sense a first image and toward a second area spaced apart from the first writing surface to sense a second image. It is respectfully submitted that claim 1 is patentably distinct from Saund because Saund does not teach, show or suggest a sensor that scans more than one writing surface where each surface can have a separate and distinct image. Rather, the overlapping tiles in Saund (as shown of FIG. 3) are from the same image.

-12-

Further, claim 2 has been amended consistent with claim 1 as currently amended. Claims 2-6 depend on claim 1 and are believed to be separately patentable over the cited art. Reconsideration and allowance of claims 1-6 are respectfully requested.

The Office Action next reports that claim 7, 18, 26-27, 30 were rejected under 35 U.S.C. and \$102(e) as being unpatentable over U.S. Patent No. 6,330,082 to Oliver (hereinafter Oliver). The Office Action states that Oliver a visual sensor adapted to provide image data discloses corresponding to sensed visual images of a writing surface; and an image processor coupled to the visual sensor to receive the image data from the visual sensor, the image processor capable of identifying information provided on the writing surface apart from the writing surface as defined in claim 7.

It is submitted that Oliver shows a converter that would convert an optical scanner that ordinarily scans an object in close proximity so that the scanner can scan a remote object or scene on, for example, a whiteboard. [Col. 2, lines 17-26 and Col. 5, lines 6-10] The remarks regarding claim 1 are also herein incorporated. Claim 7 has been amended in a manner similar to claim 1 so that the visual sensor is adapted to provide image data corresponding to sensed visual images of a writing surface or a second area spaced apart from the writing surface. In contrast, Oliver discloses a converter and scanner that scans <u>a single</u> board as shown on FIG. 5.

Therefore, it is submitted that claim 7 is patentable over the cited art. Claims 8-9 have also been amended consistent with the amendments to claim 1. Claims 8-12 depend on claim 7 and are believed to be separately patentable. Reconsideration and allowance of claims 7-12 are respectfully requested.

The Office Action next rejects independent claim 18 based on Oliver stating that Oliver discloses the features

-13-

recited in claim 18. Claim 18 has been amended and recites, "In combination with a defined writing surface provided in a fixed location in a room and a second area spaced apart from the writing surface, an image capturing system disposed in the room at a second location remote from the writing surface and the second area to sense successive visual images of at least one of the writing surface and the second area and adapted to identify information provided on the at least one of the writing surface and the second area." [emphasis added]

Further the remarks regarding claims 1 and 7 are herein incorporated. Therefore, it is submitted that claim 18 is patentable over Oliver because Oliver does not show, teach or suggest an image capturing system that senses images on more than one surface as in claim 18. Oliver shows only a single image surface. Claims 19, 22 and 26 have been amended consistent with the amendments to claim 1. Claims 19-26 depend on claim 18 and are believed to be separately patentable. Reconsideration and allowance of claims 18-26 are respectfully requested.

The Office Action next rejects claim 27 stating that Oliver also discloses the features of claim 27. Claim 27 is a method claim and has been amended to recite in part, "A method of obtaining information provided on <u>at least one of a writing surface and a second area spaced apart from the writing surface in a room, the method including: locating an image capturing system at a second location in the room <u>remote from the writing surface and the second area</u>; sensing a visual image of the <u>at</u> <u>least one of the writing surface and the second area</u> with the image capturing system; and identifying information provided on the <u>at least one of the writing surface and the second area</u> with the image capturing system." [emphasis added]</u>

It is submitted that Oliver does not teach, show or suggest all of the features of claim 27 at least because Oliver apparently scans an image on a single board. In contrast, claim Koehlers

-14-

27 includes a second area spaced apart from the writing surface from which the image capturing system can sense a visual image. The above remarks are also herein incorporated. Therefore, it is believed that claim 27 is patentable over Oliver. Claims 28, 30-31, 34, 36-39 have been amended consistent with the amendments to claim 27. Claims 28-39 depend on claim 27 and are believed to be separately patentable. Reconsideration and allowance of claims 27-39 are respectfully requested.

The Office Action next reports that claims 13 and 14 were rejected under 35 U.S.C. \$102(b) as being anticipated by U.S. Patent No. 5,450,127 to Shimizu (hereinafter Shimizu). The Office Action states that Shimizu teaches a visual sensor providing image data corresponding to sensed images, the visual sensor comprising a set of adjacent sensing elements being exposed collectively to successive portions of the image; a storage device for storing sensing element control values; and a controller coupled to the storage device and the visual sensor, the controller controlling a time duration of exposure of the sensing elements to the portion of image as a function of exposure to successive portions as defined in claim 13.

Shimizu is an image pickup apparatus for performing exposure control by using a one-dimensional image pickup device to scan an image formed by the optical system. Claim 13 has been amended consistent with claim 1 so that the visual sensor provides image date corresponding to sensed images from a writing surface or a second area spaced apart from the writing surface. The above remarks are herein incorporated by reference. It is therefore submitted that Shimizu does not teach, show or suggest all the features of claim 13, including the second area. Shimizu does provide at Col. 1, lines 34-39 that the device is portable and "easily moved from one conference room to another." However, this feature is quite distinguishable from the features of claim 13 and the present description where the writing surface and the

-15-

second area are clearly shown in the same conference room and images can be sense from either without relocating the visual sensor.

In light of the foregoing, it is submitted that claim 13 is patentable over the cited art. Reconsideration and allowance of claims 13 and 14 are respectfully requested. It is noted that claims 15-16 have been amended consistent with the amendments to claim 13. Reconsideration and allowance of claims 15-17 are also respectfully requested.

The Office Action next reports that claim 3 was rejected under 35 U.S.C. \$103 as being unpatentable over Saund in view of U.S. Patent No. 6,476,862 to Tatsumi (hereinafter The Office Action states that Saund teaches a zoomed-Tatsumi). in image, and camera calibration settings are used when images are captured. The Office Action then states that secondary reference Tatsumi teaches wherein the visual sensor includes a zoom lens and wherein the first processing value relates to a first setting of the zoom lens and the second processing value relates to a second setting of the zoom lens. The Office Action concludes that it would have been obvious to use the predetermined zoom setting of Tatsumi as inputs into the perspective transformations of Saund to reduce the need for further compensation by the transformation or to account for the additional distance that the subject matter being imaged is away from the camera.

It is noted that claim 3 depends on claim 1. Claim 1 has been currently amended as discussed above and remarks relating to claim 1 are herein incorporated by reference. It is respectfully submitted that the combination of Saund and Tatsumi do not show all the limitations of claim 1. Therefore, claim 3 is believed to be patentable over the cited art. Reconsideration and allowance of claim 3 are respectfully requested. It is further noted that the Office Action does not provide a teaching,

-16-

suggestion or motivation to combine the reference as required by In re Lee, 61 USPQ2d.1430 (2002).

The Office Action next reports that claims 5 and 6 were rejected under 35 U.S.C. \$103(a) as being unpatentable over Saund in view of Oliver. It is noted that claims 5 and 6 depend on claim 1 which as been currently amended. Remarks relating to claim 1 are herein incorporated by reference. It is respectfully submitted that the combination of Saund and Oliver do not show all the features of claim 1. Therefore, claims 5 and 6 are believed to be patentable over the cited combination.

The Office Action next reports that claims 8-9, 11-12, 19, 28, 31-32 and 37-39 were rejected under 35 U.S.C. \$103 as being unpatentable over Oliver in view of U.S. Patent No. 5,764,799 to Hong (hereinafter Hong). Claims 8-9 and 11-12 depend on independent claim 7. Claim 19 depends on independent claim 18. Claim 28, 31-32 and 37-39 depend on independent method claim 27. With respect to claims 8, 19 and 28, these dependent claims have been amended to clarify that a reference visual image of the writing surface or the second area is obtained. The cited passage of Hong pertains comparing scanned character images to reference character images in order to perform optical character recognition. The cited combination does not teach or suggest using or obtaining reference visual images of the writing surface or the second area.

Claims 12 and 39 pertain to reimaging an area and combining the images of the same area. Oliver was cited against these claims; however, Oliver teaches combining different images to form a complete image. These claims recite reimaging the same area and combining these images. Oliver simply does not teach or suggest this patentable feature.

As discussed above, independent claims 7, 18 and 27 have been currently amended. Remarks relating to claims 7, 18 and 27 are incorporated by reference. Therefore, it is

· 08/28/2003 22:54 FAX 9524768587

Koehlers

-17-

respectfully submitted that the combination of Oliver and Hong do not show all the features of independent claims 7, 18 and 27. Therefore, it is believed that claims 8-9, 11-12, 19, 28, 31-32 and 37-39 are patentable over the cited art. Reconsideration and allowance of claims 8-9, 11-12, 19, 28, 31-32 and 37-39 are respectfully requested. Further, it is respectfully submitted that the Office Action does not provide a teaching, suggestion or motivation to combine Oliver and Hong as required by <u>In re Lee</u>.

The Office Action next reports that claims 33-35 were rejected under 35 U.S.C. \$103 as being unpatentable over the combination of Oliver and Hong in further view of U.S. Patent No. 5,999,214 to Inagaki (hereinafter Inagaki). Claims 33-35 depend on independent method claim 27 which has been currently amended and remarks relating to claim 27 herein incorporated. Claims 33-35 pertain to using a remote switch moveable relative to the second position to selectively direct the image capture system toward the writing surface or the second area. The cited passage of Inagaki (col. 12, lines 4-25) pertains to voice detection in a video conference system. Applicants fail to see how this equates to switch movable relative to the second location as recited by claim 33.

The Office Action next reports that claim 36 was rejected under 35 U.S.C. \$103 aş unpatentable over the combination of Oliver, Hong, and Inagaki in further view of Claim 36 depends from dependent claim 34, discussed Saund. above, and from independent method claim 27 which has been currently amended with remarks relating to claim 27 herein incorporated by reference. Claim 36 pertains to storing processing values corresponding to the direction of the image capture system toward the writing surface and the second area. When combined with the features of claim 27 and the intervening claims, it is believed that claim 36 is patentable over the cited Reconsideration and allowance of claim 36 are solicited. art.

-18-

Further, the Office Action provides no teaching, suggestion, or motivation to combine these four references. It is also questionable whether four references may be reasonably combined to support a rejection based on obviousness.

The Office Action next reports that claims 15 and 16 were rejected under 35 U.S.C. §103 as being unpatentable over Shimizu in view of Hong. Claims 15 and 16 depend on claim 13 which has been currently amended and remarks relating to claim 13 are herein incorporated by reference. It is therefore respectfully submitted that the cited combination does not teach, show or suggest all the features of claim 13. It is further submitted that claims 15 and 16 are patentable over the cited combination. In addition, claim 16 has been amended to clarify that a reference visual image of the writing surface or the second area is obtained. As discussed above with respect to claims 8, 19 and 28, Hong compares scanned character images to reference character images in order to perform optical character recognition. The cited combination does not teach or suggest using or obtaining reference visual images of the writing surface or the second area. Reconsideration and allowance of claims 15 and 16 are requested.

The Office Action next reports that claim 17 was rejected under 35 U.S.C. \$103 as being unpatentable over Shimizu and Hong in view of Saund. Claim 17 depends on independent claim 13 which has been currently amended and remarks relating to claim 13 incorporated herein. Therefore, it is submitted that claim 17 is patentable over the cited combination because the combination does not include all the features of independent claim 13. Reconsideration and allowance of claim 17 are solicited.

The Office Action next reports that claims 10, 20-21 and 29 were rejected under 35 U.S.C. \$103 as unpatentable over Oliver in view of Saund. Claim 10 depends on claim 1; claims 20-21 depend on claim 18; and claim 29 depends on claim 27. Claims

08/28/2003 22:54 FAX 9524768587

Ø 020

-19~

1, 18, and 27 have been currently amended and applicable remarks incorporated herein. Therefore, it is submitted that claims 10, 20-21 and 29 are patentable over the cited art because the combination fails to include all the features of independent claims 1, 18 and 27. Reconsideration and allowance of claims 10, 20-21 and 29 are respectfully requested.

The Office Action next reports that claim 22 was rejected as obvious in view of the combination of Oliver and Inagaki. Claim 22 depends on independent claim 18 which has been currently amended with applicable remarks incorporated herein. It should be further noted that Inagaki uses two cameras to take pictures of the plotter 116 and other images in the room. Independent claim 18 and claim 22 recite an image capture system selectively directable to obtain images from the writing surface and the second area from a single viewing location. Therefore, it is respectfully submitted that claim 22 is patentable over the cited combination because the combination does not include all the features of claim 18. Reconsideration and allowance of claim 22 are respectfully requested.

The Office Action finally reports that claims 23-25 were rejected as obvious in view of the combination of Oliver, Inagaki and Saund. Claims 23-25 depend from claim 22 and independent claim 18 which have been currently amended with applicable remarks incorporated herein. It is respectfully believed that when the features of claims 23-25 are combined with the features recited in claims 18 and 22 the combination does not show, teach or suggest all the features recited therein. Reconsideration and allowance of claims 23-25 are respectfully requested.

It is noted that the Office Action indicates on the PTO-326 that claims 12 and 39 were objected to. However, the Office Action reports at item 12 starting on page 8 that claims 12 and 39 were rejected under 35 U.S.C. \$103 as being

-20-

unpatentable over the combination of Oliver and Hong. The applicants respectfully request clarification on this apparent discrepancy.

A petition for an extension of time for consideration of this Amendment is hereby requested. A charge authorization is enclosed herewith.

In view of the foregoing, applicants respectfully request reconsideration of this application as amended. Favorable action upon all claims is solicited.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

Steven M. Koehler, Reg. No. 36,188 Suite 1600 - International Centre 900 Second Avenue South Minneapolis, Minnesota 55402-3319 Phone: (612) 334-3222 Fax: (612) 334-3312

SMK:LPJ:tas

FAX RECEIVED

AUG 2 9 2003 GROUP 2600

OFFICIAL